

10/12/19 (E)

Roll No. ....

Total Pages : 3

**220501**

**December, 2019**  
**MCA- V SEMESTER**  
**.NET Technologies (MCA-17-301)**

 Time : 3 Hours]

[Max. Marks : 75

*Instructions :*

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

**PART - A**

1. (a) How does an ArrayList differ from Array? (1.5)
- (b) What are the uses of indexers? (1.5)
- (c) Can an abstract class implement interfaces? If no, state the reason. If yes, how it can be implemented? (1.5)
- (d) What are sealed classes? (1.5)
- (e) Explain boxing and unboxing with the help of an example. (1.5)

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- (f) What are web services? (1.5)
- (g) How do ADO.NET connected and disconnected models differ from each other? (1.5)
- (h) Mention the syntax of DataGridView class. (1.5)
- (i) List the contents of a master page file. (1.5)
- (j) Describe various server side state management options supported by ASP.NET. (1.5)

### **PART - B**

2. (a) Explain the architecture of .NET with the help of a neat diagram. (10)
- (b) Define assembly. Explain each component of assembly. Differentiate single file and multi-file assembly. (5)
3. (a) Write a program to find area of various shapes like rectangle, circle and triangle using the concept of interfaces. (5)
- (b) What are delegates? How multi cast delegates are necessary for events? Explain with example. (10)
4. Explain the exception handling mechanism in C#. Write user defined exceptions for overflow and stack empty exceptions in a class created for stack data structure.

(15)

5. (a) Develop a C# program to write student database in a flat file and read from the same file and print the 'marklist' of students. (10)
- (b) Explain page life cycle in ASP.NET. (5)
6. (a) Differentiate Code Behind File and Design File in .NET Framework. (5)
- (b) Explain Validation controls. (5)
- (c) Discuss the steps involved in creating web service in .NET. Show how the services are utilized in other applications. (5)
7. Differentiate authentication and authorization. What are different types of authentications? Explain what modifications are done in web.config while implementing form authentication. (15)
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